

Math 17A

Kouba

An Example Using the Bisection Method

$$f(x) = \ln(x+1) + x - 1$$

a	b	$\frac{1}{2}(a+b)$	$f(a)$	$f(b)$	$f(\frac{1}{2}(a+b))$
0	1	0.5	-1	+0.693	-0.095
0.5	1	0.75	-0.095	+0.693	+0.310
			-0.095	+0.310	+0.111
			-0.095	+0.111	+0.010
			-0.095	+0.010	-0.041
			-0.041	+0.010	-0.015
			-0.015	+0.010	-0.002
			-0.002	+0.010	+0.005
			-0.002	+0.005	+0.001